

**WA-Trans Partner Meeting  
October 18, 2006**

**Facilitator: Michael Leierer  
WA-Trans Assistant Project Manager and Team Lead**

<b>Attending</b>	
Steve Rush, Dept of Energy	South Central
Dave Honsinger planning mgr	North Central
Wendy Hawley, Census Michaellyn Garcia, Census Terry Hall, Data Manager Andy Norton, PSRC	North West
Kerry Wooler, Planner WSDOT Aviation Mac McKay, WDNR Tim Young, WDFW Pat Whittaker WSDOT TDO Mac McKay, WA DNR Mathieu Denuelle ESRI Michael Leierer WSDOT WA-Trans Holly Glaser WSDOT WA-Trans Ken Stallcup WSDOT WA-Trans Contractor	Olympia WSDOT HQ Shaman Room

**Announcements**

Michaellyn Garcia will replace Wendy Hawley as the contact from the Census Bureau.

Holly Glaser has been hired as the new GIS Analyst. Holly is responsible for:

- Developing (and supporting implementation of) processes to get WSDOT data into WA-Trans,
- Conflation of line work to assist translation processes for King County
- Providing GIS expertise in processes to be automated during the One Road Pilot (such as integration processes),
- Providing consistency in GIS processes across all WA-Trans pilots and activities,
- Working in support of local governments providing data to WA-Trans.

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### Steering Committee Activities (Policies and Processes)

- Issues regarding jurisdictions with no data
- We will be doing a pilot for a jurisdiction (at least one) with no data.
- We will be working with Tim Young to understand and participate in the Enterprise Architecture (EA) and how WA-Trans / EA impacts each other,  
We are particularly concerned with the maintenance and accuracy of the state boundary layer (regarding agreement points),

### WA-Trans Business Case

- FGDC and GITA sponsored a case study to build business case for a multi-agency GIS project. GITA came to Washington last November and worked with us to determine business case for WA-Trans.
- The study was only focused on Transportation Planning. We have collected only a small percentage of the business benefits identified so far (and these only in WSDOT).
- Assuming a very conservative development schedule we were able to show enough benefits from those identified to **recoup more than 75%** over a 20 year period. We have much more to collect in WSDOT.

### Business Case Continues

- FGDC has funded GITA to come out again this fall. The goal is to finish the work.
- We will be interviewing non-WSDOT people to determine the value to them of WA-Trans,
- If any of you wish to participate in interviews week after to provide us the data please e-mail Tami or speak with Ken at the end of the meeting.
- We are working with a private company\* that frequently contracts for construction projects with WSDOT to find out how WA-Trans could save them money and how much of those would be passed on to WSDOT.

Comments: It is highly likely that the return on investment within WSDOT will more than justify the WA-Trans project. Benefits to other agencies and organizations will be enormous.

The greatest cost savings will come from strategic benefits, e.g. accident prevention. Assigning dollar values to such benefits is a difficult task. GITA will be able to help us in this area.

GITA expects that the WA-Trans ROI will serve as an example of ROIs for GIS transportation projects.

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\*This company does a lot of mapping in King Co and sees a decrease in billings to WSDOT if they could use the WA Trans framework data

### **Puget Sound Pilot Phase I and II (Puget Sound Pilot Milestones)**

- Developed the WA-Trans side of the translator. (1)
- Implemented the WA-Trans database and tested it with WSDOT data.
- Document the Agreement Points process, which is nearing completion between Pierce and King County, (2)
- Document the translation processes.
- Testing of translated Pierce and King county data, in the WA-trans database, by the counties GIS groups.
- Developing MOU agreements
- Sharing of Ortho Photos for WA-Trans purposes

Comment 1: The translator converts data in an agency's format to WA-Trans format on a field by field basis. It adds meta-data, and constant values, removes attributes that are not needed etc. Eventually, the translator will convert WA-Trans data back to agency format.

Comment 2: Ken is documenting the agreement point procedure used by King and Pierce counties to set agreement points where their road data overlaps

It is important that local data providers determine agreement points. In this way they will have control over their own data. If a jurisdiction decides not to participate, the agreements points will be set by others so that the project can proceed.

Automation is a priority for the Translator as the translation procedure is complex. Not all process will be automated, but maximizing automation will greatly facilitate translation.

### **Puget Sound Pilot Next Steps . . .**

- Complete data user side of translation process,
- Complete documentation of translation and agreement point processes,
- Work with Puget Sound Regional Council to test the combined King/Pierce county dataset,
- Work with Puget Sound Regional Council to document QA/QC processes,
- Provide data to The National Map,
- Begin process to put WSDOT data into WA-Trans,
- Work with King and Pierce Counties to develop translators back out of WA-Trans,

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- Find funding for Phase II.

Comments: King County data will be delivered soon – conflation issues are being worked on  
Process used to translate provider data into WA Trans affects how data can be translated back out of WA-Trans to provider.

Testing will be done by King County, Pierce County, as well as the Puget Sound Regional Council.

WSDOT data will be added to the WA-Trans framework after Jan 2007.

Phase 2 of the WA-Trans pilot will add data from Snohomish and Kitsap counties.

### **One-Road Pilot (One-Road Milestones) (1)**

Project Charter has been completed.

- Nebraska, Oregon, Ohio and Tennessee DOTs are involved and Kansas and Nevada are interested,  
Tennessee will start working with one of their counties
- A Joint Application Development (JAD) Session is scheduled for November in Pendleton, Oregon
- A WA-Trans Staging database has been created to be used for integration and data maintenance research, (2)

Comment 1: The One Road Pilot is funded by the “Transportation Pooled Fund” contributed to by the states mentioned above.

Comment 2: This is a processing area for ETL [extract transform and load], and the final data will be placed in the WA Trans production database

### **One-Road Activities**

- We are working to develop agreements with WSU and Central Washington University,
- We are still trying to create private partnerships,  
WA Trans is working with 2 private companies  
Expect this will help in adding expertise  
Ongoing documentation
- We are documenting processes which will lead to requirements for integration and user interfaces.

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- We are working on database changes which will allow us to create feature level metadata.

Comment: At the Vancouver URISA conference there was a great deal of interest in feature-level metadata.

### **One-Road Next Steps . . .**

- Continue to work on translators and how easily additional software can be interfaced with them,
- Develop requirements for the two user interfaces,
- Develop requirements for Integration,
- Look at existing software solutions and research,
- Develop integration software (iteratively),
- Test the results of the software with various pilots,
- Develop QA/QC, security processes and software.
- We will do as much as we have funding and resources to do.

Comments: We need an automated, easy to use interface which works with software that users have. It is important that the GIS software from different manufacturers can be used in the WA Transportation database development. We are always looking for good solutions that have already been created,

WA-Trans is using an iterative approach to development starting with core functions. When these are in place, more features are added. It is easier to make smaller changes at the start of a project than to make big changes to existing project

QA/QC is done at each stage in process.

It is a goal of WA-Trans to automate as much of the translation process as possible. The difficulties if manipulating disparate data into a single format is one of the obstacles that WA-Trans seeks to overcome.

Security – data providers must be vetted,

Tim Young asked if the One Road Project was an effort to integrate data from WA trans with OR trans.

Michael Leierer: Yes. The Transportation Pooled Fund works with many states, 5 states so far, all information should be transferable although each state has own architecture.

Data transferred to a partner from the WA Trans Database can be either a choice by state area or by using a translator.

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Interoperability is the key to providing benefit to data providers. For example, the WA-Trans Pilot has demonstrated that King and Pierce county line work can still be used in a single format.

### **Data Provider Translation Process Concept for Puget Sound Pilot**

- Fill out the WA-Trans Crosswalk Spreadsheet,
- Download the WA-Trans personal database,
- Translate provider data into the WA-Trans Personal Database,
- Fill out the WA-Trans submittal form,
- Upload database, submittal form and metadata file.

Note: Add conflation to the diagram.

Eventually providers will do QA/QC.

### **Demonstration**

Michael Leierer demonstrated the translation process.

Steps in the demonstration:

- Clip data from King and Pierce co
- Reproject to WA State Plane South (which will be used for all WA-Trans data)
- For Chosen data
- Add attributes
- Map provider attribute to WA Trans schema attribute
- Show log file of translation errors etc
- Display single shapefile with combined information
- Display segment description info

Comments:

The translator can be customized for each provider.

FME is similar to ESRI interoperability extension. It was used in Walla Walla county to translate data into WA-Trans.

We will use modelbuilder in WA-Trans, but others will be using other tools.

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**WA-Tran Translation Process (Concept for Puget Sound Pilot)**

- WA-Trans perform QA/QC on provider's submitted data within the submitted personal database.
- Add WA Trans specific attributes to providers records.
- Translate providers submitted data to WA-Trans Staging database.

Note:

Tim Young asked of you need ArcGIS to use FME?

Michael Leierer: You need ArcGIS only if you are using a geodatabase, you need to have an ArcView license. FME is different from ESRI because ArcCatalog has built in tools and model builder functions. FME is a stand alone application and contains translation tools such as reprojection

With FME and ArcGIS, we are working out a process to be used by more than one shop.

Tim: Can the process also map values?

Michael: Yes, can add the value of a single attribute to a particular field in WA Trans. You can also change the data type.

There is a steep learning curve for this process. Data Interoperability Extension is recommended if have ArcGIS. There is a tutorial available on request from WA-Trans. The tutorial can be downloaded from Sharepoint.

CAD is also being translated using FME. The Bellevue runs translator FME overnight to move parcel data into GIS

**Conflation of King County Data**

- Goal
  - Link the CRAB mobility data to TNET, King County's GIS road data.
- Data
  - Both GIS and Tabular data were used
  - King County TNET -- The most recent county-wide GIS road data contains many more roads than st\_cris
  -
- Brief Description of the Problem
  - King County TNET and st\_cris road data both divide the roads into segments.
  - TNET has a unique identifier for each segment
  - st\_cris segments are grouped by road number.
  - Need to create linear referencing system on the st\_cris GIS layer,

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- The GIS layers are offset and the roads in the two layers do not lie on top of each other.
- Solution
  - St\_cris streets that did not correspond to a TNET street were removed.
  - Attributes from segments in the st\_cris layer were transferred to the nearest TNET segment.
  - Analyze The TNET and st\_cris match segment for errors.

Tim Young asked if there was a datum difference in the line shift the slide with orthophoto and King TNET + st\_cris data

Holly Glaser: No. There appears to be a difference, but the distance and alignment of the 2 sets are different in other areas. This is shown in next slide of attribute transfer.

Pat Whittaker asked if King county be happy with the result.

Holly Glaser: They probably will be since the lines are from King County.

Pat: Does King Co know they will need to do this and are getting a benefit?

Holly: Yes. They will continue to use the conflated data to maintain events.

### **The TNET and County Road (Inventory Lines are Offset)**

Attributes from the County Road Inventory Segment are Added to the TNET segment

### **One-Road JAD Session**

- What is a JAD session for the One-Road Pilot?
  - A Joint Application Development (JAD) session for One-Road is a meeting where a group of folks will get together to design user interfaces and document requirements and specifications necessary to develop the design.
- Who is involved?
  - Representatives from Oregon and Washington State, Franklin, Grant and Walla Walla counties in Washington and the adjacent counties in Oregon; Umatilla and Morrow, selected members of the WA-Trans Steering Committee, other WA-Trans state partners.

Members from each county as well as experts in similar work will attend. to



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**One-Road JAD Session Goals**

- Design an Internet Data Provider Interface
- Design an Internet Data User Interface
- The results of the interface designs will be:
  - Identification of the functions necessary for the Interfaces to meet business needs,
  - Detailed screen mockups depicting the data entry, user navigation and design necessary for the identified functions of the interfaces,
- Develop detailed requirements and specifications for each designed interface,
  - Functions necessary to support the interfaces in an Internet architecture will also be detailed.
  - Requirements and specifications will be used to detail the functionality necessary to meet business needs so that a developer can build the interfaces to perform as designed,

**After meeting discussion:**

Kathy Udenberg working on the No Data project. She will also be giving a presentation in Wenatchee this Monday on how WA-Trans could have benefited Walla Wall County during the recent fire on the border with Columbia County.

JAD participation: Someone needs to contact Dave Blackstone to confirm participation. Steve Rush is coming to Pendleton and will confirm later. Dave Honsinger said that there will be three attending from the North Central Region.

There has been a recent organizational change and (???) MPO functions under Benton Franklin council of government for planning.

Adams County has NO DATA

Dave Honsinger will tell folks in the Wenatchee Valley Transportation Council to attend tomorrow's meeting.

**Next Meeting and Contact Information**

The next meeting will be March 14, 10 a.m. – Noon at Transportation Headquarters, 310 Maple Park SE, Olympia, WA in Room 2F-22 (Shamen Room).

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